

# Polarization

## Malus Law

$$I = I_0 \cos^2 \theta$$

## Phase difference in birefringent material

$$\phi = \frac{2\pi}{\lambda} d |n_e - n_o|$$

## Reflection at normal incidence

$$R \equiv \frac{I_{ref}}{I_{in}} = \left( \frac{n_2 - n_1}{n_2 + n_1} \right)^2$$

## Brewster's Angle in Air

$$\theta_{air} = \arctan n$$

## Wiens Displacement Law

$$\lambda_{max} \cdot T = 2,898 \cdot 10^3 \mu m \cdot K$$